

DEPARTMENT OF COMMERCE
FY2017 Budget Impact Paper
Appropriation Funding

Bureau: Census Bureau
Appropriation: Periodic Censuses and Programs
Title of Budget Program: Decennial Census
Title of Sub-Program: 2020 Census

Dollars in (\$ Millions)	FY 2017 President's Budget	House Mark	Senate Mark
Periodic Censuses and Programs	\$1,348.3	\$1,200.0	\$1,248.3
2020 Census	\$778.3	\$656.8	\$705.1

Citation: FY 2017 Senate Bill S. 2837 (page 6); Senate Report 114-239 (page 14); FY 2017 House Bill H.R. 5393 (page 7); and, House Report 114-605 (page 7).

Action Requested: Support the President's Budget Request.

The FY 2017 House Mark of \$656.8 million for the 2020 Census is \$121.5 million (15.6 percent) below the President's Budget Request. The FY 2017 Senate Mark of \$705.1 million is \$73.2 million (9.4 percent) below the President's Budget Request. Put another way, these Marks represent a 79.4 percent cut and a 47.8 percent cut, respectively, of the requested increase of \$153.0 million in this critical year of field-testing the new operational designs. The House Mark funds the 2020 Census at a level only \$31.5 million (or 5 percent) higher than FY 2016, nearly eliminating funding requested in FY 2017 to fully implement the innovative design decisions that the Census Bureau released in October 2015 that will help save an estimated \$5.2 billion relative to repeating last decade's methods.

The FY 2017 Budget reflects what is needed for the 2020 Census program to successfully achieve its ambitious cost avoidance and quality goals while minimizing operational risk. At the House and Senate Marks, the Census Bureau will reduce program management, contingency, and operational planning functions in the FY 2017 Budget, despite the insistence of the Government Accountability Office (GAO) and the Office of Inspector General (OIG) as to their criticality. This will allow the Census Bureau to prioritize and preserve even more critical funding investments for systems development and field infrastructure build-out, in time for the 2018 End-to-End Census Test, as well as for executing the testing needed to ensure system interoperability and refine coverage operations ahead of 2018.

With in-field address canvassing beginning in August 2019, and the impact already being felt and apparent in findings and recommendations from both GAO and OIG and from five consecutive years of enacted appropriations below the President's Budget Requests (FY 2012 – FY 2016), the budget request for FY 2017 represents every dollar necessary to get back on track, minimize future operational risk, and ensure the Census

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Bureau can achieve a quality 2020 Census and at a reduced cost compared with past Census designs.

At both the Senate and House proposed funding levels, the Census Bureau must cancel the 2017 Puerto Rico Test as well as all fieldwork for the 2017 Census Test on the Colville Reservation and Off-Reservation Trust Land in Washington State and the Standing Rock Reservation in North and South Dakota. These cuts will eliminate the only opportunity to test the 2020 Census solutions architecture prior to the 2018 End-to-End Census Test, leading to higher risks of operational problems, and thus costs in 2018 and beyond. Cancellation of these tests also means that the Census Bureau loses the window of opportunity to test operations among two populations that are historically harder to count. Populations that are mobile, certain ethnic and language minorities, and those living in non-traditional housing are typically more difficult to count in the Census. Additionally, these tests provided for the only opportunity for the Census Bureau to conduct Update-Enumerate operations ahead of the 2018 End-to-End Census Test, which the test areas represented. Failure to adequately test operations in these areas will have a direct and disproportionate impact on the quality of the 2020 Census for these populations. Lastly, canceling the FY 2017 Puerto Rico and FY 2017 Census tests is a particularly time-sensitive action (mid-November 2016) – because Census Day for the test is April 1, 2017, significant preparations (including recruiting, hiring and training) need to take place in the first quarter of FY 2017. This will lead to expenditures that cannot be recovered in the event the tests need to be canceled due to a funding level below the President's requested level.

Funding for field office infrastructure and program management will also be significantly cut at both proposed funding levels (more deeply in the House Mark). The field office infrastructure cut will lead to delays in opening offices in 2018 and 2019, directly increasing the risk of operational problems and reduced field efficiency, which will result in increases to the cost of the 2020 Census. The field office infrastructure includes starting the leasing process for 6 Regional Census Centers (RCC) and 250 Area Census Offices (ACO), and configuring those offices so that they are ready for Census Operations. Due to coordination and processing time associated with the General Services Administration leasing process, this endeavor involves long lead times (typically 12-18 months) and thus needs to start immediately because the RCCs begin to open in December 2017 and the ACOs begin to open in January 2019. Delays will mean that we have to compress this process and will lead to higher costs later. Cuts to program management likewise will lead to increased risk of damaging system and operational failures during the actual 2020 Census, as well as funding shortfalls occurring due to failures to schedule, plan, and project costs accurately.

The House Mark will cause the Census Bureau to make reductions to Address Canvassing operations in 2017, which will drive up the percentage of cases that must be shifted to the field for the 2020 Census Address Canvassing operation in 2019, thus directly increasing the lifecycle cost estimate and eroding estimated cost savings of \$900 million. The reductions to this operation are compounded by reductions to

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activities in our Geographic Support program that are aimed at providing the 2020 Census with the most complete and accurate address list and geographic information that is the foundation of both the In-Office and In-Field Address Canvassing operations. The Census Bureau will also need to curtail all advertising planned for the 2018 End-to-End Census Test and reduce planning efforts for the 2020 Census advertising campaign, thus missing key opportunities to learn how to encourage hard-to-count populations to respond and increasing the cost and effort in the remaining years leading up to the 2020 Census.

Finally, the House Mark will force delays in work on the Integrated Communications Contract. This contract is aimed at maximizing self-response in order to minimize costly non-response follow-up visits. Work needs to start now on tailoring messages to populations that will motivate them to respond to the census as well as on the advertising strategy to reach people where they are. Delays in this work could lead to lower response in 2020 and additional non-response follow-up workload.

Specific cuts at both funding levels and their impact on the 2020 Census are detailed below.

Major Operational Group Dollars in (\$ Millions)	FY 2017 President's Budget	House Mark	Senate Mark
Reengineered Address Canvassing	\$19.3	\$14.3	\$19.3
Optimizing Self Response	\$70.0	\$49.0	\$66.0
Utilizing Administrative Records	\$1.2	\$1.2	\$1.2
Reengineering Field Operations	\$431.6	\$373.0	\$386.3
2020 Census Operations	\$40.9	\$40.9	\$40.9
Coverage and Quality	\$33.5	\$19.5	\$30.5
Programs Required by Law	\$25.8	\$25.8	\$25.8
Program Management	\$36.6	\$23.6	\$25.6
Systems Engineering	\$64.3	\$64.3	\$64.3
Management and Administrative Services	\$12.9	\$12.9	\$12.9
Program Reserve	\$9.9	\$0.0	\$0.0
IT Support, IT Security, Acquisitions Management, Worker's Compensation	\$32.3	\$32.3	\$32.3
TOTALS	\$778.3	\$656.8	\$705.1

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1. Reengineered Address Canvassing – 2017 Budget Request is \$19.3 million

The House Mark funds this activity at \$14.3 million, a 26 percent cut from the budget request. This cut would require the Census Bureau to immediately scale back the early in-office address canvassing operation which began in September 2015 at headquarters and is currently also occurring at the National Processing Center, as well as curtailing the purchases of updated geospatial data to support these activities. Approximately 70 staff positions at the National Processing Center will be eliminated as a result of the \$5.0 million reduction to this activity. These reductions further curtail the efforts to fully implement a reengineered address canvassing operation. As a result of the cuts sustained during earlier budget cycles beginning in FY 2013, while the Address Canvassing Test being conducted in FY 2016 and FY 2017 will allow us to validate the reengineered methodologies and operations, the test itself will continue to use prototype technology.

The result of the funding level at the House Mark would be degradation of both the quality and quantity of in-field address canvassing work the 2020 Census program can accomplish prior to the beginning of in-field address canvassing in 2019. Each of these degradations lowers the percentage of households that can be added to the Master Address File for the 2020 Census without the need to canvass that block in person. Increased in-field visits will have a direct and meaningful impact in raising the lifecycle cost of conducting the 2020 Census, thereby deteriorating the estimated \$900 million in cost savings associated with reengineered address canvassing.

We appreciate that the Senate Mark that fully supports this activity.

We also note that the corresponding request for the Geographic Support Systems (GSS) program is also significantly reduced by both the House and Senate Marks, compounding the obstacles to the 2020 Census being equipped with an adequate address list.

2. Optimizing Self Response – 2017 Budget Request is \$70.0 million

The House Mark provides \$49.0 million, which is \$21.0 million or 30 percent below the President's Budget Request. This would eliminate funding for the advertising campaign for the 2018 End-to-End Census Test, causing lasting damage to our efforts to maximize the self-response rate, not only for the 2018 End-to-End Census Test but also for the 2020 Census. The cut could raise the cost of conducting the 2020 Census and lead to a meaningful erosion of the estimated \$400 million in cost savings associated with optimizing self response, if more households will require visits in 2020. By missing the opportunity to test a full advertising campaign in the 2018 End-to-End Census Test, the advertising strategy for the 2020 Census would be untested and unproven on a population whose media consumption habits have changed dramatically since the last decennial census cycle. In addition to raising costs, the Census Bureau will also be unable to refine the communications strategy,

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which could lead to weakness in targeted advertising to specific hard-to-count population groups -- again resulting in more costs for in-person visits and less accurate counts of these population groups.

Additionally, at this proposed funding level, implementation of the partnership program and hiring of 19 partnership specialists will be delayed into FY 2018, eroding the progress made in the 2010 Census for reaching these hard-to-count population groups and leading to increased costs and impacts to the quality of the 2020 Census. This includes delays in planning for the outreach to the limited English proficient and historically hard-to-count populations through the use of Complete Count Committees and local partnership events. Together these delays will impact the program's ability to maximize self-response and to accurately count these population groups. Shifting this work from 2017 to 2018 will also raise the overall cost, as more resources will be required to complete the planning in an expedited manner to ensure program goals can still be met in the actual 2020 Census. One of the clear lessons learned from the 2010 Census was that earlier outreach would pay greater dividends in awareness and participation, in turn avoiding costly field work. These Marks eliminate the ability to capitalize on that knowledge.

The Senate Mark provides \$66.0 million, which is \$4.0 million or 6 percent below the budget request. While this funding level allows for the advertising campaign to support the 2018 End-to-End Census Test, the partnership program activities will still be cut.

3. Reengineering Field Operations – 2017 Budget Request \$431.6 million

The House Mark provides \$373.0 million, which is \$58.6 million, or 14 percent below the President's Budget Request. The Senate Mark provides \$386.3 million, which is \$45.3 million, or 10 percent below the President's Budget Request. At both proposed funding levels, the Census Bureau will be forced to cancel both the 2017 Puerto Rico Census Test and all field operations for the 2017 Census Test on tribal lands, as well as delay significant activities in the build-out of the field infrastructure required for 2018-2020 activities. Collectively these three significant operational cuts will raise the risk that new, innovative methods may not work in these areas in 2020, thus potentially eroding the \$2.5 billion estimate associated with Reengineering Field Operations.

Without the test in Puerto Rico, the 2020 Census program loses its only opportunity to test the fully operational IT solutions platform prior to the 2018 End-to-End Census Test. This will increase the risk significantly of not getting all 2020 Census IT systems refined and integrated before 2018, which could lead to significant cost overruns in 2018, 2019, and 2020 if the program encounters system implementation challenges.

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In addition to major systems readiness risk associated with cancelling the 2017 Puerto Rico Census Test, proceeding without this test will also eliminate the program's ability to test both the canvassing of Puerto Rico's non-traditional addresses and Spanish language software ahead of the 2020 Census. This test is even more important given the elimination of planning and design activities in Puerto Rico necessitated by the levels in the FY 2015 appropriation and elimination of work in Puerto Rico in the Geographic Support Systems (GSS) program as a result the FY 2016 appropriation and both FY 2017 Marks. Removing the testing and refinement of these activities would lead to a significant risk of cost overruns or poor data quality in Puerto Rico in 2020, as well as other areas that will be heavily reliant on Spanish language systems or that have non-traditional addresses, as the coverage of and communication with these communities will not be optimized. This reduction will result in elimination of plans to hire 1,400 field representatives at a cost of \$2.4 million and 20 employees at headquarters at a cost of \$4.0 million. It will also curtail plans to lease one office in Puerto Rico to conduct the test at a cost of \$0.3 million, as well as to award two large contracts for \$6.0 million and several smaller contracts and other objects for \$4.3 million.

Without the 2017 Census Test planned on two tribal reservations, the 2020 Census will foremost lose its opportunity to test the integration of operations and systems for simultaneously enumerating and updating the listing of non-traditional addresses, known as Update Enumerate. This cut will also limit, but not eliminate, the Census Bureau's ability to test the feasibility of collecting tribal enrollment information in the 2020 Census. The program has not yet been able to plan or test these operations this decade, so pushing the first actions of any kind on Update Enumerate to the 2018 End-to-End Census Test will limit the program's efforts to cost effectively enumerate tribal and other rural residents with non-traditional addresses. Besides raising the potential cost of Update Enumerate operations in the 2018 End-to-End Census Test and 2020 Census, poor coverage of these areas, which is traditionally a challenge, will be at increased risk. This reduction will result in elimination of plans to hire 100 field representatives at a cost of \$0.2 million, 20 employees at headquarters at a cost of \$4.0 million, and 60 regional and local office staff at \$1.5 million to conduct the test. It will also curtail plans to award two large contracts for \$3.8 million and several smaller contracts and other objects for \$4.0 million.

Lastly, canceling the FY 2017 Puerto Rico and FY 2017 Census tests is a particularly time-sensitive action (mid-November 2016) – because Census Day for the test is April 1, 2017, significant preparations (including recruiting, hiring and training) need to take place in the first quarter of FY 2017. This will lead to expenditures that cannot be recovered in the event the tests need to be canceled due to a funding level below the President's requested level.

At both the House and Senate funding levels, work planned to support Field Office Infrastructure will be delayed. The House Mark represents a 19 percent, or \$23.2 million, cut (composed of 20 headquarters staff at \$4.2 million, \$10.0 million in

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contractor support, and \$9.0 million in equipment), while the Senate Mark represents a 12 percent, or \$14.8 million, cut (composed of 12 headquarters staff at \$2.5 million, \$6 million in contractor support, and \$6.3 million in equipment). These are especially significant cuts because they put operations for the 2018 End-to-End Census Test and 2020 Census behind schedule, neither of which can be pushed to the right on the calendar – put simply, from the 2018 End-to-End Census Test through the 2020 Census itself, we cannot make up for lost time. If the field office infrastructure is not ready on time, delays will impact census operations themselves. Since the deadline for delivering apportionment counts is immovable, the only way to respond to delays will be to “crash the schedule” or de-scope planned improvements or operations, resulting in higher costs and possible decreases in quality. The leasing and build-out process for as many as 250 Area Census Offices and 6 Regional Census Centers is a lengthy and complex process that must begin and be fully resourced in 2017. Delays will undercut many of the 2020 Census program’s efforts to maximize the efficiency and cost effectiveness of field operations through automation and technology. It also risks operational readiness for the 2018 End-to-End Census Test, if offices cannot be opened, equipped, and staffed in a timely manner. A rushed effort later will increase costs, with ongoing spillover effects onto the efficiency of many field operations and systems. By putting the program behind schedule with no added time to spare, this cut will raise future costs or damage the effectiveness of 2020 Census field systems and operations, and potentially both.

Finally, the House Mark also includes a \$5.0 million cut to the Nonresponse Follow-up planning operation (eliminating 10 staff at Headquarters) that will curtail work planning special operations required to ensure coverage of some of the very hardest-to-count population groups. This includes rural areas and remote areas, as well as travelling and migratory groups. Without this planning, the program’s ability to capture these communities without incurring cost overruns will be threatened.

4. Coverage and Quality, including 2020 Census Evaluation and Experiments – 2017 Budget Request is \$33.5 million

The House Mark funds these efforts at \$19.5 million, which is \$14.0 million or 42 percent below the President’s Budget. The Mark would eliminate 50 employees and related operational costs (total of \$8.7 million) to plan operations that help the Census Bureau ensure coverage of the population and quality of the data, and to plan operations that will measure how well the 2020 Census achieves its goals. The Census Coverage Measurement program has sustained repeated cuts over the past five years; as a result of these reductions, limited planning and development has occurred. With additional reductions in FY 2017, the Census Bureau will be forced to replan the Census Coverage Measurement activities, which will lead to delays in the releases of information regarding the coverage and quality of the 2020 Census in tandem with the population counts. This cut would delay measures of coverage of the 2020 Census, which is the most important measure of quality, by 6 months following the release of the 2020 Census data, rather than concurrently. The

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concurrent release of these data was a planned improvement from earlier decennial censuses that we will no longer be able to achieve.

The remainder of this cut will delay the experiments and evaluations planned for the 2020 Census (\$4.3 million consisting of \$1.9 million for 9 headquarters positions and \$2.4 million in contract support). These activities have already been delayed as a result of the levels in the FY 2015 and FY 2016 appropriation. These activities must be made up in 2018 but at a greater overall cost, as the development of these operations will be forced onto a significantly shorter timetable. Any loss to the quality and timeliness of these experiments and evaluations would damage the Census Bureau's ability to measure the quality and count accuracy of the 2020 Census and to learn key lessons needed for early planning for the 2030 Census.

Lastly, at the House Mark, \$3.0 million worth of work designed to plan the evaluation of the Integrated Communication and Partnerships Program (ICPP) will be delayed, despite past stakeholder feedback received that the evaluation should be planned in conjunction with the planning of the actual program. Failing to plan this could lead to the ICPP being misaligned with program expectations, threatening its ability to maximize self-response and accurate coverage of hard-to-count population groups.

The above \$3.0 million deferral of work to plan the evaluation of the Integrated Communication and Partnerships Program (ICPP) is the sole impact of the \$30.5 million Senate Mark for coverage and quality operations, which is 9 percent below the President's Budget.

5. Program Management – 2017 Budget Request of \$36.6 million.

The House Mark provides \$23.6 million, a reduction of \$13.0 million or 36% below the President's Budget. The Senate Mark provides \$25.6 million, a reduction of \$11.0 million or 30 percent below the President's Budget. These reductions will eliminate staff (65 employees and 55 employees in the House and Senate Marks respectively) that manage a program of enormous complexity and oversee the design of integrated systems to support 2020 Census Operations, as well as contract support for systems integration.

Reengineering the 2020 Census is a groundbreaking undertaking; it requires systems and new operations to work seamlessly. Work will be lost that supports scheduling, cost, and HR management, stakeholder engagement, and operational design. As the decade progresses into 2017, the Census Bureau is managing increasing risk and an increasingly complex integrated schedule for development, testing, and execution. The expectations of 2020 Census stakeholders for the maturity of its cost estimation are growing. Without funding a fully resourced program management office, the proposed funding levels jeopardize the Census Bureau's ability to successfully plan and implement a reengineered 2020 Census. Failures to schedule or project costs accurately at any point over the next four years

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could lead to damaging system and operational failures or funding shortfalls. Reductions in appropriations throughout the decade have forced the program to prioritize research, testing, planning and development of systems and operations in support of the innovations in the 2020 Census that will allow us to honor our cost and quality commitments. However, an undertaking as complex as the 2020 Census, with dozens of operations and supporting systems, requires robust program management – especially now as we implement the 2020 Census Operational Plan. Cutting program management introduces significant risk to a successful 2020 Census.

In their audits and testimony, both the OIG and GAO have heavily criticized the 2020 Census program for not yet fully implementing proven best practices in program and project management. A program the size and scope of the 2020 Census, particularly with the growing use of sophisticated technology and systems, cannot be planned, tested, and successfully implemented without these tools and practices. Without this funding, the program will not be able to make the improvements necessary to comply with best practices.

6. Program Reserve – 2017 Budget Request of \$9.9 million.

Program Reserve will be entirely eliminated for FY 2017 at levels in both the House and Senate Marks. This is an especially significant cut in 2017, as the Census Bureau is finalizing critical IT systems prior to the 2018 End-to-End Census Test. Without contingency, there will be no recourse to cover unforeseen expenses in building a system of systems designed to collect data from approximately 330 million people living in 143 million households. GAO has strongly recommended that the 2020 Census carry a risk reserve ranging from 8 to 12 percent throughout the decennial lifecycle, as an ill-timed natural disaster, outbreak of infectious disease, or unrelated cybersecurity incident could all dramatically increase the costs or damage the accurate count of the 2018 End-to-End Census Test or 2020 Census. Our requested level of \$9.9 million represents a risk reserve of only 1.3 percent in FY 2017. The flooding Houston recently experienced during the 2016 Census Test only briefly shutdown early field operations, but offered a glimpse of the type of unpredictable events and their cost implications that underscore the importance of contingency funds throughout the rest of the decade.